

Multiple Sclerosis

late (second, third, and fourth weeks). In prosperous countries, neonatal deaths account for about two thirds of infant mortalities, the majority being in the first week. The IMR is usually regarded more as a measure of social affluence than a measure of the quality of antenatal and/or obstetric care; the latter is more truly reflected in the perinatal mortality rate (the number of deaths after 24 weeks of gestation, including stillbirths, and during the first week of life per 1,000 total births).

As deaths increasingly are pushed to the later ages, the issue has arisen as to whether life span may increase or whether societies will experience a “rectangularization” of mortality. An increase in life span would mean that humans had discovered ways to keep alive beyond the age that any human has thus far lived. While this seems theoretically possible, science has a long way to go before this is likely to be accomplished. Instead, it seems more likely that deaths will become increasingly compressed into a few years late in life. This will lead to a rectangularization of the age curve, in which almost everybody stays alive until age 100 or beyond and then quickly begins to die.

SEE ALSO: Ethnicity, Life expectancy, Marital status, Maternal mortality, Morbidity, Socioeconomic status

Suggested Reading

- Caldwell, J. (1986). Routes to low mortality in poor countries. *Population and Development Review*, 12, 171–220.
- Hoyert, D. L., Arias, E., Smith, B. L., Murphy, S. L., & Kochanek, K. D. (2001). Deaths: Final data for 1999. *National Vital Statistics Reports*, 49(9). http://www.cdc.gov/nchs/data/nvsr/nvsr49/nvsr49_08.pdf
- Hummer, R. A., Rogers, R. G., Nam, C. B., & LeClere, F. B. (1999). Race/ethnicity, nativity, and U.S. adult mortality. *Social Science Quarterly*, 80, 136–153.
- Kannisto, V., Lauritsen, J., Thatcher, A. R., & Vaupel, J. W. (1994). Reductions in mortality at advanced ages: Several decades of evidence from 27 countries. *Population and Development Review*, 20, 793–810.
- McGinnis, J. M., & Foege, W. H. (1993). Actual causes of death in the United States. *Journal of the American Medical Association*, 270, 2207–2212.
- United Nations Statistics Division. (2000). *The world's women: Trends and statistics*. New York: Author.
- Weeks, J. R. (2002). *Population: Introduction to concepts and issues* (8th ed.). Belmont, CA: Wadsworth Thomson Learning.
- Wilmott, J. R., & Horiuchi, S. (1999). Rectangularization revisited: Variability of age at death within human populations. *Demography*, 36, 475–495.

JOHN R. WEEKS
MANUEL MIRANDA

Multiple Chemical Sensitivity *see*
Idiopathic Environmental Intolerance

Multiple Personality Disorder *see*
Dissociative Identity Disorder

Multiple Sclerosis Multiple sclerosis is the most common inflammatory disease of the central nervous system. The cause stems from faulty regulation of the immune system. Myelin, the insulator of nerves, is attacked by the immune system because of improper recognition. Inflammation surrounding the nerves strips the myelin from the nerve fibers and damages some of the fibers (axons) preventing the normal transmission of nerve impulses.

The prevalence of multiple sclerosis is 70/100,000 in the United States with regional variation. Young women are unfortunately disproportionately affected, outnumbering men nearly 2:1. The disease typically begins from age 20 to 50 although onset at both younger and older ages exists. Familial tendencies are apparent. The children of patients with multiple sclerosis have a sixfold greater risk of developing multiple sclerosis than those children of parents without disease. Crucial genetic markers have not yet been identified.

Various subtypes of multiple sclerosis exist. Each subtype depicts the clinical course of the illness. Onset may be either relapsing–remitting (improving, then relapsing) or continuously progressive (worsens over time). The most common subtype, relapsing–remitting, begins before the progressive subtypes by nearly a decade. The peak incidence of relapsing–remitting multiple sclerosis occurs between the ages of 25 and 29, whereas progressive is most commonly diagnosed between ages 35 and 39. Distinguishing a person's subtype is important because therapy depends upon disease classifications.

The clinical symptoms and physical findings in multiple sclerosis are varied. No region within the central nervous system is spared. Cognitive impairment (loss in memory and concentration) occurs to variable degrees in more than one half of individuals with